

PRINT OF DRAWINGS
AS ORIGINAL FILED

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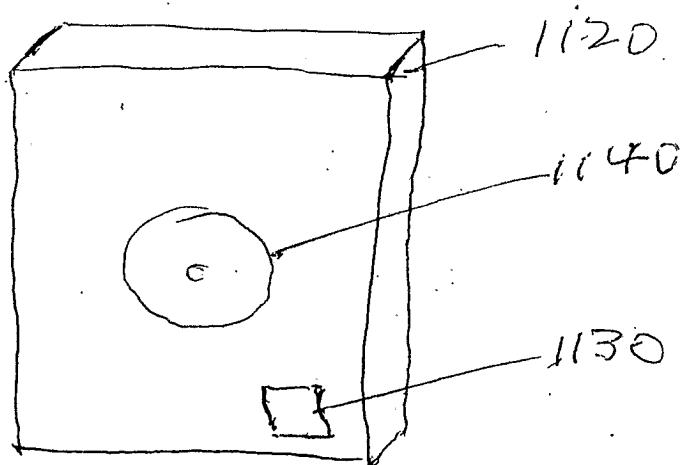


Figure 11

PRINT OF DRAWINGS
AS ORIGINAL FILED

122A

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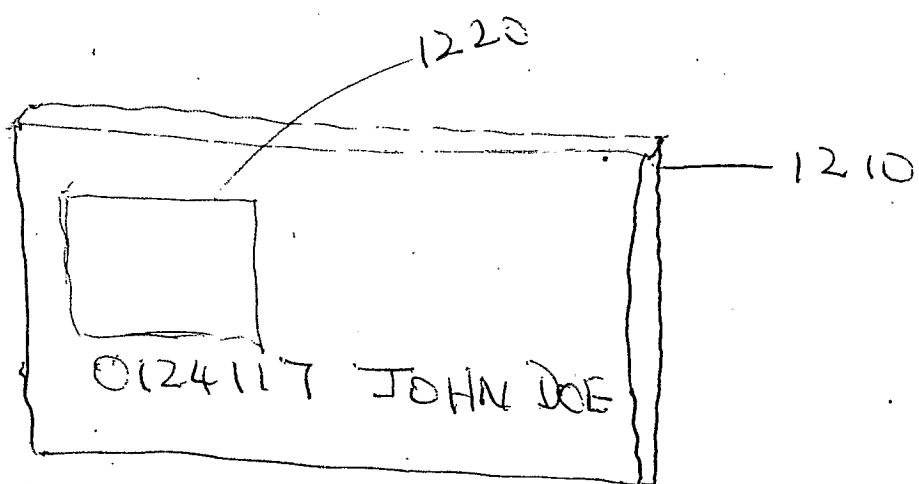


Figure 12

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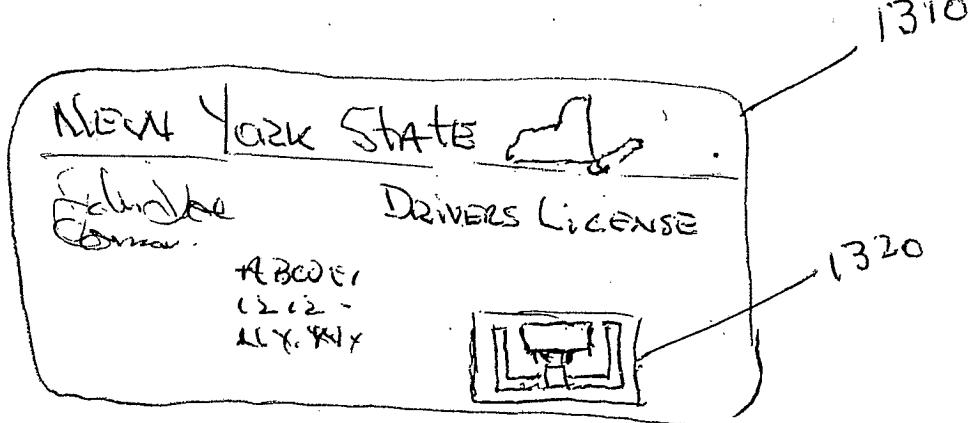


Figure 13

TAB

2



"EXPRESS MAIL" LABEL TB689860116
DA DEPOSIT: September 9, 1994

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF: PAUL A. MOSKOWITZ ET AL) Docket No. Y0994-180

Serial No.: 303977)

Filed: HEREWITH)

FOR: RADIO FREQUENCY IDENTIFICATION) Dated: September 9, 1994
TAG)

Information Disclosure Statement
Under 37 C.F.R. 1.97-1.98

The Commissioner of Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

Consonant with the duty to disclose information material to patentability set forth in 37 C.F.R. 1.56, enclosed herewith is a completed form PTO-1449 and copies of each of the references cited therein.

Respectfully submitted,
Louis J. Perello
Louis J. Perello
Reg. No. 33,206
(914) 945-3145

IBM Corporation
Intellectual Property Law
P.O. Box 218
Yorktown Heights, N.Y. 10598



"EXPRESS MAIL" LABEL TB689860116
DAT F DEPOSIT: September 9, 1994

Sheet 1 of 1

INFORMATION DISCLOSURE CITATION				U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket Number YO994-180	Serial Number 08/303 977							
				Applicant PAUL A. MOSKOWITZ ET AL									
				Filing Date Herewith	Group Art Unit 2617								
U.S. PATENT DOCUMENTS													
EXAMINER INITIAL	DOCUMENT NUMBER			DATE	NAME		CLASS	SUBCLASS	FILING DATE IF APPROPRIATE				
<i>MM</i>	4	8	1	8	9	7	3	<i>07/1989</i>	Yamakawa et al	340	572		
<i>MM</i>	5	0	1	4	0	4	0	<i>07/1991</i>	Weaver et al	340	572		
<i>MM</i>	4	6	7	4	1	7	5	<i>07/1987</i>	Stampfli	<i>437</i>	<i>209</i>		
<i>MM</i>	5	2	5	7	0	1	1	<i>10/1993</i>	Beigel	340	572		
<i>MM</i>	4	8	5	7	8	9	3	<i>07/1989</i>	Carroll	340	572		
<i>MM</i>	4	0	0	9	3	7	5	<i>07/1977</i>	White et al	<i>364</i>	<i>436</i>		
FOREIGN PATENT DOCUMENTS													
EXAMINER INITIAL	DOCUMENT NUMBER			DATE	COUNTRY		CLASS	SUBCLASS	TRANSLATION YES NO				
<i>MM</i>	0	5	9	5	5	4	9	<i>05/1994</i>	European	—	—	—	—
<i>MM</i>	2	1	7	3	8	8	8	<i>09/1990</i>	Japan	—	—		X
<i>MM</i>	5	2	6	6	2	6	8	<i>10/1993</i>	Japan	—	—		X
<i>MM</i>	4	3	1	9	8	7	8	<i>12/1993</i>	Germany	—	—	-	X
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)													
EXAMINER					DATE CONSIDERED								
<i>Swann</i>					<i>04/04/94</i>								

TAB

3


**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/300,977	09/09/94	MOSKOWITZ	P Y0994180

LOUIS J PERCELLO
INTELLECTUAL PROPERTY LAW DEPARTMENT
LAW CORPORATION
P O BOX 218
YORKTOWN HEIGHTS NY 10598

EGM1/0413

EXAMINER
SWANN III, G

ART UNIT	PAPER NUMBER
	3

2617

DATE MAILED: 04/13/95

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined Responsive to communication filed on _____ This action is made final.

A shortened statutory period for response to this action is set to expire (3) month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. Notice of References Cited by Examiner, PTO-892.
2. Notice of Draftsman's Patent Drawing Review, PTO-948.
3. Notice of Art Cited by Applicant, PTO-1449.
4. Notice of Informal Patent Application, PTO-152.
5. Information on How to Effect Drawing Changes, PTO-1474..
6.

Part II SUMMARY OF ACTION

1. Claims 1-29 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. Claims _____ have been cancelled.
3. Claims _____ are allowed.
4. Claims 5-6, 12, 14-16, 20-23, 28 are rejected.
5. Claims 1-29 are objected to.
6. Claims _____ are subject to restriction or election requirement.
7. This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. Formal drawings are required in response to this Office action.
9. The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been approved by the examiner; disapproved by the examiner (see explanation).
11. The proposed drawing correction, filed _____, has been approved; disapproved (see explanation).
12. Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received been filed in parent application, serial no. _____; filed on _____.
13. Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. Other

EXAMINER'S ACTION

Serial Number: 08/303,977

-2-

Art Unit: 2617

1. Claims 5-6, 12, 14-16, 20-23, & 28 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 is indefinite since it is clear that the lines are not bonding types as recited. It seems --bonded to the chip connectors-- should be inserted after "are" in line 1. In claim 6, lines 1-2, "into with the chip is placed" is not understood. It seems "with" should read --which--. As regards claim 12, there is no support in the specification for lamination on one side only of the circuit. In claim 14, there is no antecedent basis in the claim for "the outer layer" (line 1) and there is no antecedent basis in the specification for "mylar" or "polyimide" (line 2). In claim 15, there is no antecedent basis in the specification for "phenolic butyral" or "silicone adhesive" in line 2. In line 2, "etc." renders the claim vague and indefinite. In claim 16, there is no antecedent basis in the specification for "half-wave dipole" (line 2) or "loop" (line 3). In claim 20, line 3, "on" should read --one-- and there is no antecedent basis in the specification for "substrate ... less than ... (5 mils)" in lines 3-4 or "circuit ... less ... (20 mils)" in lines 4-5. Claims 21-23 depend from claim 20. In claim 28, line 1, "ISO" is not understood.

Serial Number: 08/303,977

-3-

Art Unit: 2617

2. Claims 1-25, & 27-29 are objected to because of the following informalities: In lines 8-9 of claim 1, "(coplanar ... elements)" must be deleted. In line 1 of claims 2-9, 12-16, 18-25, 27, & 29 and in lines 1 & 3 of claim 17, "where" should read --wherein--. In claim 27, line 1, --that-- should be inserted before "is." Appropriate correction is required.
3. Claim 26 would be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112 and to include all of the limitations of the base claim and any intervening claims.
4. The drawings are objected to because: In Figs. 2 & 3, brackets are needed to tie the parts of the drawing together. In Fig. 7D, "741" should read --744--. Correction is required.
5. The drawings are objected to as failing to comply with 37 CFR § 1.84(f) which states, "The same character must never be used to designate different parts." However, "1000" has been used to designate both the overall embodiment and the ticket in Fig. 10. Correction is required.

Serial Number: 08/303,977

-4-

Art Unit: 2617

- ✓ 6. The drawings are objected to because Figure 8 fails to comply with 37 CFR § 1.84(i), which states: "Modified forms of construction can only be shown in separate figures". Correction is required.
- ✓ 7. The specification is objected to because it does not include certain reference signs shown in the drawings. 37 CFR § 1.84(f) states, "Reference signs not mentioned in the description shall not appear in the drawing and vice versa." The following reference signs are not mentioned in the description: "1000" (Fig. 10), "1100" (Fig. 11), "1200" (Fig. 12), and "1300" (Fig. 13). Correction is required.
- ✓ 8. The disclosure is objected to because of the following informalities: On page 3, line 3, "ISO" is not understood. On page 5, line 19, "vias" is not understood. On page 6, lines 13-14, "In a still more embodiment" is not understood. In lines 31 & 34, the reference to "contacts ... on the flexible substrate" does not seem to agree with the drawing. In line 40, "at" (first instance) should be deleted. On page 7, line 21, --(tape automated bonding)-- should be inserted after "TAB." On page 9, line 25, "The allow" should read --This allows--. Appropriate correction is required.

Serial Number: 08/303,977

-5-

Art Unit: 2617

9. The Abstract of the Disclosure is objected to because in line 1, "The ... a" should be deleted and replaced by --A-- and in lines 1-2, "that comprises" should read --consists of--. Correction is required. See M.P.E.P. § 608.01(b).
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Riccitelli and Lee disclose electronic logic circuitry on cards.
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glen Swann whose telephone number is (703) 305-4384. The examiner can normally be reached on Monday - Thursday from 7:30 AM to 5:00 PM. The examiner can also be reached on alternate Fridays.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Peng, can be reached on (703) 305-4392.
A Fax is available at (703) 305-9508 FOR FILING GROUP 2600 PAPERS ONLY.
- Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-8576.


GLEN SWANN
PRIMARY EXAMINER
GROUP 2600

SWANN:grs
April 6, 1995

NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

PTO Draftpersons review all originally filed drawings regardless of whether they are designated as formal or informal. Additionally, patent Examiners will review the drawings for compliance with the regulations. Direct telephone inquiries concerning this review to the Drawing Review Branch, 703-305-8404.

The drawings filed (insert date) 9/9/94, are
 A. not objected to by the Draftsperson under 37 CFR 1.84 or 1.152.
 B. objected to by the Draftsperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawings must be submitted according to the instructions on the back of this Notice.

1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings:
 Black ink. Color.
 Not black solid lines. Fig(s) 1-13.
 Color drawings are not acceptable until petition is granted.
2. PHOTOGRAPHS. 37 CFR 1.84(b)
 Photographs are not acceptable until petition is granted.
3. GRAPHIC FORMS. 37 CFR 1.84(d)
 Chemical or mathematical formula not labeled as separate figure. Fig(s) _____
 Group of waveforms not presented as a single figure, using common vertical axis with time extending along horizontal axis. Fig(s) _____
 Individuals waveform not identified with a separate letter designation adjacent to the vertical axis. Fig(s) _____
4. TYPE OF PAPER. 37 CFR 1.84(e)
 Paper not flexible, strong, white, smooth, nonshiny, and durable. Sheet(s) _____
 Erasures, alterations, overwritings, interlineations, cracks, creases, and folds not allowed. Sheet(s) _____
5. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable paper sizes:
 21.6 cm. by 35.6 cm. (8 1/2 by 14 inches)
 21.6 cm. by 33.1 cm. (8 1/2 by 13 inches)
 21.6 cm. by 27.9 cm. (8 1/2 by 11 inches)
 21.0 cm. by 29.7 cm. (DIN size A4)
 All drawing sheets not the same size. Sheet(s) _____
 Drawing sheet not an acceptable size. Sheet(s) _____
6. MARGINS. 37 CFR 1.84(g): Acceptable margins:
 Paper size _____

21.6 cm. X 35.6 cm.	21.6 cm. X 33.1 cm.	21 cm. X 27.9 cm.	21 cm. X 29.7 cm.
(8 1/2 X 14 inches)	(8 1/2 X 13 inches)	(8 1/2 X 11 inches)	(DIN Size A4)
T 5.1 cm. (2")	2.5 cm. (1")	2.5 cm. (1")	2.5cm.
L .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	2.5 cm.
R .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.5 cm.
B .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.0 cm.

 Margins do not conform to chart above. Sheet(s) _____
 Top (T) _____ Left (L) _____ Right (R) _____ Bottom (B) _____
7. VIEWS. 37 CFR 1.84(h)
REMINDER: Specification may require revision to correspond to drawing changes.
 All views not grouped together. Fig(s) _____
 Views connected by projection lines. Fig(s) _____
 Views contain center lines. Fig(s) _____

Partial views. 37 CFR 1.84(h)(2)

- Separate sheets not linked edge to edge. Fig(s) _____
- View and enlarged view not labeled separately. Fig(s) _____
- Long view relationship between different parts not clear and unambiguous. 37 CFR 1.84(h)(2)(ii)
Fig(s) _____
- Sectional views. 37 CFR 1.84(h)(3)
 - Hatching not indicated for sectional portions of an object. Fig(s) _____
 - Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) _____
 - Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) _____
 - Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) _____
 - Hatching of juxtaposed different elements not angled in a different way. Fig(s) _____
- Alternate position. 37 CFR 1.84(h)(4)
 - A separate view required for a moved position. Fig(s) _____

Modified forms. 37 CFR 1.84(h)(5)

- Modified forms of construction must be shown in separate views. Fig(s) _____

8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)

- View placed upon another view or within outline of another. Fig(s) _____
- Words do not appear in a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) _____

9. SCALE. 37 CFR 1.84(k)

- Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) _____
- Indication such as "actual size" or "scale 1/2" not permitted. Fig(s) _____
- Elements of same view not in proportion to each other. Fig(s) _____

10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)

- Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (except for color drawings). Fig(s) 1-13

11. SHADING. 37 CFR 1.84(m)

- Shading used for other than shape of spherical, cylindrical, and conical elements of an object, or for flat parts. Fig(s) _____
- Solid black shading areas not permitted. Fig(s) _____

12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p)

- Numbers and reference characters not plain and legible. 37 CFR 1.84(p)(1) Fig(s) _____
- Numbers and reference characters used in conjunction with brackets, inverted commas, or enclosed within outlines. 37 CFR 1.84(p)(1) Fig(s) _____
- Numbers and reference characters not oriented in same direction as the view. 37 CFR 1.84(p)(1) Fig(s) _____
- English alphabet not used. 37 CFR 1.84(p)(2) Fig(s) _____
- Numbers, letters, and reference characters do not measure at least .32 cm. (1/8 inch) in height. 37 CFR(p)(3) Fig(s) _____

13. LEAD LINES. 37 CFR 1.84(q)

- Lead lines cross each other. Fig(s) _____
- Lead lines missing. Fig(s) _____
- Lead lines not as short as possible. Fig(s) _____

14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)

- Number appears in top margin. Fig(s) _____
- Number not larger than reference characters. Fig(s) _____
- Sheets not numbered consecutively, and in Arabic numerals, beginning with number 1. Sheet(s) _____

15. NUMBER OF VIEWS. 37 CFR 1.84(u)

- Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) _____
- View numbers not preceded by the abbreviation Fig. Fig(s) _____
- Single view contains a view number and the abbreviation Fig. Fig(s) _____
- Numbers not larger than reference characters. Fig(s) _____

16. CORRECTIONS. 37 CFR 1.84(w)

- Corrections not durable and permanent. Fig(s) _____

17. DESIGN DRAWING. 37 CFR 1.152

- Surface shading shown not appropriate. Fig(s) _____
- Solid black shading not used for color contrast. Fig(s) _____

TO SEPARATE, HOLD TOP AND BOTTOM EDGES, SNAP-APART
3RD CARBON

FORM PTO-892 (REV. 2-92)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	SERIAL NO. <i>08/303977</i>	GROUP PART UNIT <i>2617</i>	ATTACHMENT TO PAPER NUMBER <i>3</i>
NOTICE OF REFERENCES CITED <i>4/11/95</i>		APPLICANT(S) <i>MOSKOWITZ ET AL.</i>			

U.S. PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
A		3934122	01-1976	Riccatelli	340	825.34	
B		5204663	04-1993	Lee	340	825.3	
C							
D							
E							
F							
G							
H							
I							
J							
K							

FOREIGN PATENT DOCUMENTS

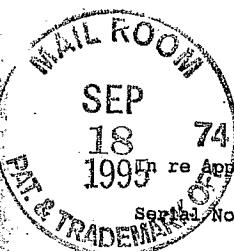
*		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS	PERTINENT SHTS. PP. DWG SPEC.
L								
M								
N								
O								
P								
Q								

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

R	
S	
T	
U	

EXAMINER <i>Swann</i>	DATE <i>04-06-95</i>	
--------------------------	-------------------------	--

* A copy of this reference is not being furnished with this office action.
(See Manual of Patent Examining Procedure, section 707.05 (a).)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

SEP
18
1995

re Application of: Moskowitz et al

Serial No.: 08/303,977

Filed: September 9, 1994

For: RADIO FREQUENCY CIRCUIT AND MEMORY IN THIN FLEXIBLE PACKAGE

THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, D.C. 20231

Sir:

Transmitted herewith is an Amendment in the above-identified application.

 No additional fee is required. The fee has been calculated as shown below:

(COL. 1) (COL. 2) (COL. 3)

CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE
*		**			
TOTAL 29	MINUS	29	= 0	X \$22.00	\$ 0.00
*		***			
INDEP. 18	MINUS	18	= 0	X \$76.00	\$ 0.00
[] 1ST PRESENTATION OF MULTIPLE DEP. CLAIM				+\$240.00	\$
TOTAL				\$ 0.00	

* If the entry in COL. 1 is less than the entry in COL. 2, write "0" in Col. 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, write "20" in this space.

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, write "3" in this space.

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found from the equivalent box in COL. 1 of a prior amendment or the number of claims originally filed.

 Please charge my Deposit Account No. 09-0468 in the amount of \$ _____.
A DUPLICATE COPY OF THIS SHEET IS ENCLOSED. The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 09-0468.
A DUPLICATE COPY OF THIS SHEET IS ENCLOSED. Any additional fees required under 37 CFR 1.16 for the presentation of extra claims. Any patent application processing fees under 37 CFR 1.17.

Respectfully submitted,

By: *Louis J. Perello*
Attorney: Louis J. Perello
Reg. No. 33,208
Telephone No. (914) 945-3145DOCKET NO: YO994-180IBM CORPORATION
INTELLECTUAL PROPERTY LAW DEPT.
P.O. Box 218
Yorktown Heights, New York 10598



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Moskowitz et al

Serial No: 08/303,977

Group No. 2617

Filed: September 9, 1994

Examiner: G. Swann

For: RADIO FREQUENCY CIRCUIT AND MEMORY IN THIN FLEXIBLE PACKAGE

Commissioner of Patents and Trademarks
Washington, D.C. 20231

CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)

I hereby certify that the attached correspondence comprising:

Amendment Transmittal Sheet (original and one copy)
Petition and Fee for Extension of Time
Amendment Under 37 C.F.R. 1.111
Nine Sheets Drawings (with corrections marked in red ink)
Form PTO-1449 with references
Information Disclosure Statement
Return Postcard

is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

on September 13, 1995

Barbara Pitrello-Rasa
(Type or print name of person mailing paper)

Barbara Pitrello-Rasa
(Signature of person mailing paper)

DOCKET NO. Y0994-180

TAB

4



COPY
9-13-95
A
2602

PP. 2617

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re application of: Moskowitz et al
Serial No.: 08/303,977

Group Art Unit: 2617

Filed: September 9, 1994

Examiner: G. Swann

For: RADIO FREQUENCY CIRCUIT AND MEMORY IN THIN FLEXIBLE PACKAGE

Commissioner of Patents and Trademarks
Washington, D.C. 20231

4/10/95
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Apt
10/20/95

PETITION AND FEE FOR EXTENSION OF TIME (37 CFR 1.136(a))

1. This is a petition for an extension of time to respond to the Office Letter mailed on April 13, 1995 for a period of Two (2) months.
2. Applicant is other than a small entity.
3. Extension:

<u>(months)</u>	<u>Fee for other than small entity</u>
[] one month	\$ 110.00
[X] two months	\$ 370.00
[] three months	\$ 870.00
[] four months	\$ 1320.00

Fee: \$ 370.00

55 OCT 16 PM 12:07
GROUP 260
RECEIVED
U.S. PATENT AND TRADEMARK OFFICE

4. An amendment

- [X] is filed herewith
[] has been filed

5. Fee payment

[X] Charge fee to Deposit Account No. 09-0468 and for any additional extension fee required or credit any excess fee paid.
A DUPLICATE OF THIS PETITION IS ATTACHED.

Respectfully submitted,

By: Louis J. Percello
Attorney: Louis J. Percello
Reg. No.: 33,206
Telephone No.: (914) 945-3145

Docket No.: Y0994-180

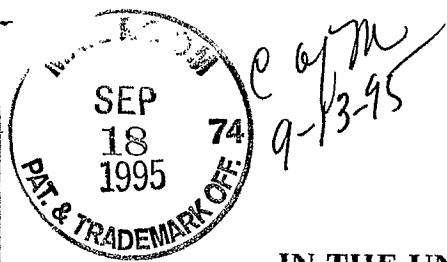
IBM Corporation
Intellectual Property Law Department
P.O. Box 218
Yorktown Heights, New York 10598

330 RA 09-0468 10/05/95 08303977
33012 116 370.00CH

TAB

5

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Moskowitz et al.

Date: September 13, 1995

Serial No.: 08/303,977

Group Art Unit: 2617

Filed: September 9, 1994

Examiner: G. Swann

For: RADIO FREQUENCY CIRCUIT AND
MEMORY IN THIN FLEXIBLE PACKAGE

The Commissioner of Patents and Trademarks
Washington, D.C. 20231

Agb
10/20/95

AMENDMENT UNDER 37 C.F.R. 1.111

Sir:

In response to the Office Action mailed April 13, 1995, the Applicants respectfully request that their application for letters patent be amended as follows:

IN THE SPECIFICATION

On page 3, line 3, replace "ISO" with International Organization for Standardization
(ISO) --.

Serial No. 08/303,977

In the Brief Description of the Drawings section, insert after the description of Figure 8 the following: Figure 8A shows a thin tag enclosed in a parcel membrane or in the wall of an envelope.

On page 5, line 19, replace "vias" with -vias (between-plane connectors through a dielectric layer).

On page 5, line 35 before "the bonding structures" insert -the substrate 220 is less than 125 microns (5 mils) in thickness;--.

On page 6, line 8 after "polyethylene" insert --, polyester, mylar, and polyimide.--

On page 6, lines 13-14, replace "In a still more embodiment" with --In a still more preferred embodiment--.

On page 6, line 15 after "EVA" insert --, phenolic butyral, or silicone adhesive--.

On page 6, line 16 after "polymeric material" insert -(such as polyester, mylar, polyimide, and polyethylene)--

On page 6, lines 29-31 replace "The chip 410 is bonded to contacts 425 on the flexible substrate 420 which are connected to a dipole antenna 430 contained on the substrate." with The chip 410 has contacts 425 which are connected to a antenna 430 contained on the substrate.

Serial No. 08/303,977

On page 6, line 32-34 replace "The chip 510 placed in the window 550 is bonded to contacts 525 on the flexible substrate 520 which are connected to more than one folded dipole antenna 530 and 531 contained on the substrate." with -- "The chip 510 placed in the window 550 has contacts 525 which are connected to more than one folded dipole antenna 530 and 531 contained on the substrate."

g1
On page 6, line 40, replace "at by leads" to --by leads--.

On page 7, line 24, insert --(tape automated bonding)-- after "TAB".

On page 9, line 25, replace "The allow" with --This allows--.

IN THE ABSTRACT

a 8 Per item 9 of the Office Action, change the first two lines of the Abstract to read: -A novel thin and flexible radio frequency (RF) tag has a semiconductor circuit with logic, memory, and radio frequency--

IN THE DRAWINGS

In Figure 1 replace "Figure 1A" with --Figure 1A--.

Serial No. 08/303,977

Per item 4 of the Office Action, add brackets to Figure 2 to tie the parts of the drawing together.

Per item 4 of the Office Action, add brackets to Figure 3 to tie the parts of the drawing together.

Per item 4 of the Office Action, in Figure 7D replace "741" with --744--.

Per item 6 of the Office Action, separate Figure 8 into Figure 8 and Figure 8A so that the modified forms of construction are shown in separate figures.

Per items 5 and 7 of the Office Action, delete two occurrences of "1000" in Figure 10.

Per item 7 of the Office Action, delete "1100" in Figure 11.

Per item 7 of the Office Action, delete "1200" in Figure 12.

Per item 7 of the Office Action, delete "1300" in Figure 13.

IN THE CLAIMS

- q 1. A thin flexible electronic radio frequency tag circuit comprising;
- a. an insulating, flexible substrate;
- b. an antenna that is an integral part of the substrate and that has terminals;

Serial No. 08/303,977

- c. a circuit chip having a modulator circuit, a logic circuit, a memory circuit, and chip connectors and being on the substrate in adjacent proximity to the antenna;
- d. one or more connecting lines between the antenna terminals and the chip connectors, the connecting lines being coplanar with the antenna and antenna terminals.
[(coplanar means no vias, crossovers, etc. single plane of wiring. Adjacent means no stacking of elements.)]
- (J) 9
2. A circuit, as in claim 1, [where] wherein the substrate is organic.
3. A circuit, as in claim 2, [where] wherein the substrate is polyimide.
4. A circuit, as in claim 2, [where] wherein the substrate is polyester.
5. A circuit, as in claim 1, [where] wherein the connecting lines are bonded to the chip connectors using any of the bonding types including thermal compression, single point bonding, C4 bonding, and conductive adhesive.
6. A circuit, as in claim 1, [where] wherein the substrate has an aperture into [with] which the chip is placed.
7. A circuit, as in claim 1, [where] wherein the chip is covered by an encapsulant.
8. A circuit, as in claim 7, [where] wherein the encapsulant is opaque.

Serial No. 08/303,977

Agreed

9. A circuit, as in claim 7, [where] wherein an organic cover surrounds the chip, the encapsulant, the substrate, and the antenna.

~~14~~ A circuit, as in claim ~~10~~, [where] wherein the circuit is laminated on one side.

~~15~~ A circuit, as in claim ~~10~~, [where] wherein the circuit is laminated on two sides.

~~16~~ A circuit, as in claim 9, [where] wherein the [outer layer] organic cover is one of the materials including polyester, mylar, polyimide, and polyethylene.

~~17~~ A circuit, as in claim ~~11~~, [where] wherein the adhesive is one of the materials including ethyl vinyl acetate (EVA), phenolic butyral, and silicone adhesive[etc].

~~18~~ A circuit, as in claim 1, [where] wherein the antenna is a resonant antenna and is any one of the following structures including folded dipole, [half-wave] dipole, and loop.

~~19~~ A circuit, as in claim 1, [where] wherein a battery is also affixed to the substrate in adjacent proximity to the antenna and chip and is connected by one or more battery connecting lines to two or more chip battery contacts [where] wherein the battery connecting lines and the battery contacts are coplanar with the antenna and connecting lines.

Serial No. 08/303,977

- ~~20~~ A circuit, as in claim ~~17~~, [where] wherein the battery contacts are connected to the battery connecting lines by any of the bonding types including spot welding, soldering, thermocompression bonding, and conducting adhesive.
- ~~21~~ ¹⁹ A circuit, as in claim ~~17~~, [where] wherein the battery contacts are connected by spot welding and the chip contacts are connected to the antenna by thermocompression bonding.
- ~~22~~ A circuit, as in claim 1, [where] wherein the chip has at least one chip dimension less than 300 microns (12 mils), the antenna has at least one antenna dimension less than 35 microns (1.4 mils), and the substrate has at least [on] one substrate dimension less than 125 microns (5 mils) whereby the circuit has at least one circuit dimension less than 508 microns (20 mils).
- ~~23~~ ²⁰ A circuit, as in claim ~~20~~, [where] wherein the chip memory has information about mailing and the circuit is applied to a mailed letter or parcel.
- ~~24~~ ²³ A circuit, as in claim ~~21~~, [where] wherein the RF tag is enclosed within a stamp.
- ~~25~~ ²³ A circuit, as in claim ~~21~~, [where] wherein the RF tag is enclosed within the parcel or envelop membrane.
- ~~26~~ ²³ A circuit, as in claim ~~20~~, [where] wherein the tag is enclosed in a passport.
- ~~27~~ ²³ A circuit, as in claim ~~20~~, [where] wherein the tag is enclosed in an admission ticket.

Serial No. 08/303,977

- 16* 27. A circuit, as in claim *16*, [where] wherein the circuit has at least one tag dimension that is less than 760 microns (30mils).
- 21* 28. A circuit, as in claim *27*, that is encapsulated as an International Organization for Standardization (ISO) [ISO] standard credit card size package.
29. A circuit, as in claim *20*, [where] wherein the tag is enclosed in a drivers license.

REMARKS

This Amendment is in response to the Office Action mail dated April 13, 1995, rejecting Claims 5-6, 12, 14-16, 20-23, and 28 and objecting to Claims 1-29 under 35 U.S.C. Section 112. The Applicants respond by amending the Specification; Figures 1A, 2, 3, 7D, 8, and 10-13; the Abstract; and Claims 1-9, 12-25, and 27-29. Copies of the filed drawings, marked with the corrections in red ink are provided.

Per item 1 of the Office Action, the Claims have been amended to over come the rejections under 35 U.S.C. Section 112.

The Examiner is directed to page 6, line 2 of the specification for support of lamination only on one side of the circuit (Claim 12.)

The Examiner is directed to page 5, line 26 of the Specification and Figure 4 (Figure 5) for support of "dipole" ("folded dipole") antennas (Claim 16.)

Serial No. 08/303,977

The last paragraph on page 5 has support for the circuit thickness. Support for the substrate thickness was added here. No new matter was added because these dimensions where specified in the Claims as filed.

Specification support for the materials recited in Claims 14 and 15 were added to page 6 of the Specification. No new matter was added because these materials were specified in the Claims as filed.

Per item 2 of the Office Action, the informalities of Claims 1-25 and 27-29 have been corrected.

As the Examiner states in item 3 of the Office Action, Claim 26 is now allowable since the rejections under 35 U.S.C. Section 112 are over come by this amendment.

Per items 4-6 of the Office Action, the drawings have been amended and mark ups in red ink have been provided.

Per item 7 of the Office Action, the Drawings and/or the Specification have been amended to remove the reference sign objections.

Per item 8 of the Office Action, the Specification has been amended to remove the objections to the indicated informalities.

The International Organization for Standardization is well known. A copy of the International Standard 7810, "Identification cards - Physical characteristics" is provided herein.

YO994-180

A

Serial No. 08/303,977

A well known definition of vias was added to the specification. See the description, particularly the second sentence of page 5 and the definition on page 1154, in Microelectronic Packaging Handbook edited by Tummala and Rymaszewski, 1989, pages 68, 76, and 1154 provided herewith.

The Applicants respectfully request reconsideration and allowance of Claims 1 - 29 as amended. The fee for a two month extension of time is authorized to be charged to deposit account number 09-0468. Although no additional fees are thought to be due, all other necessary and proper fees, except the issue fee, required to further prosecute this application are also authorized to be charged to this deposit account. If the Examiner thinks that a telephone interview would be help further the prosecution of this application, he is invited to call the Applicants' attorney at 914-945-3145.

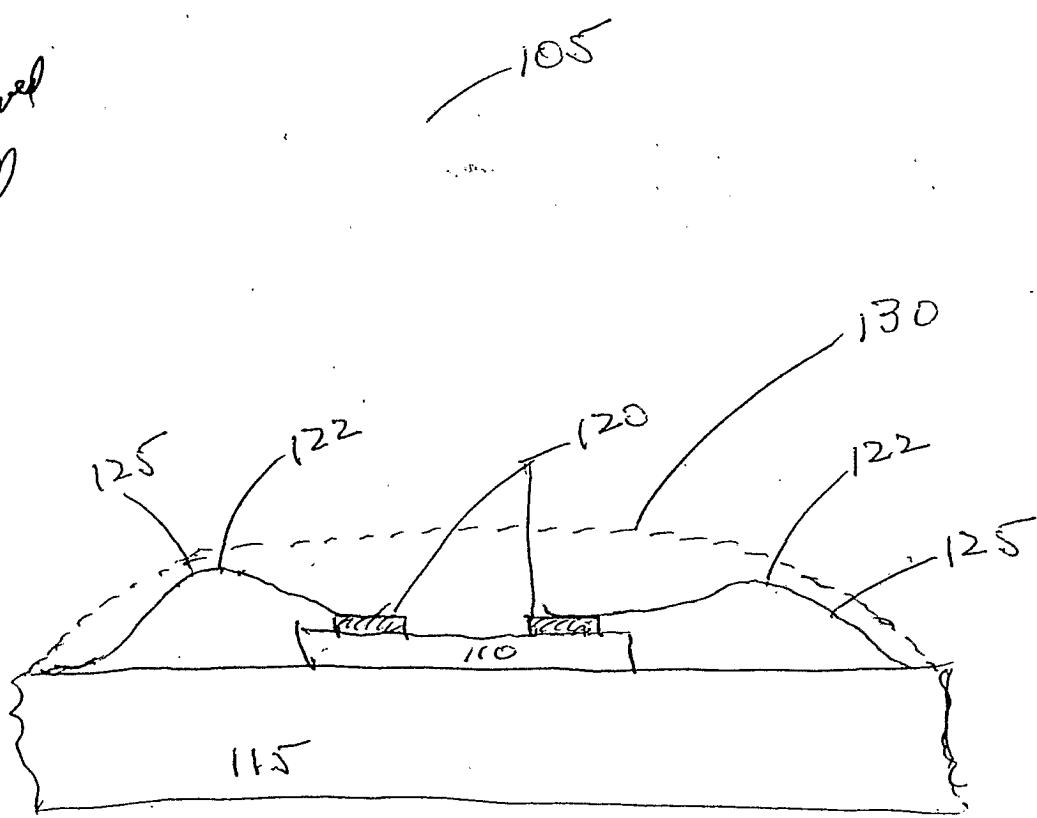
Respectfully submitted,

By: Louis J. Perello
Louis J. Perello - Attorney
Reg. No. 33,206

IBM Corporation
Intellectual Property Law Dept.
P.O. Box 218
Yorktown Heights, N.Y. 10598
(914) 945-3145 phone
(914) 945-3281 fax

Y0994-180

Approved
MMP



PRIOR ART

~~Figure 1A~~

Figure 1A

Figure 1

y0994-120

200

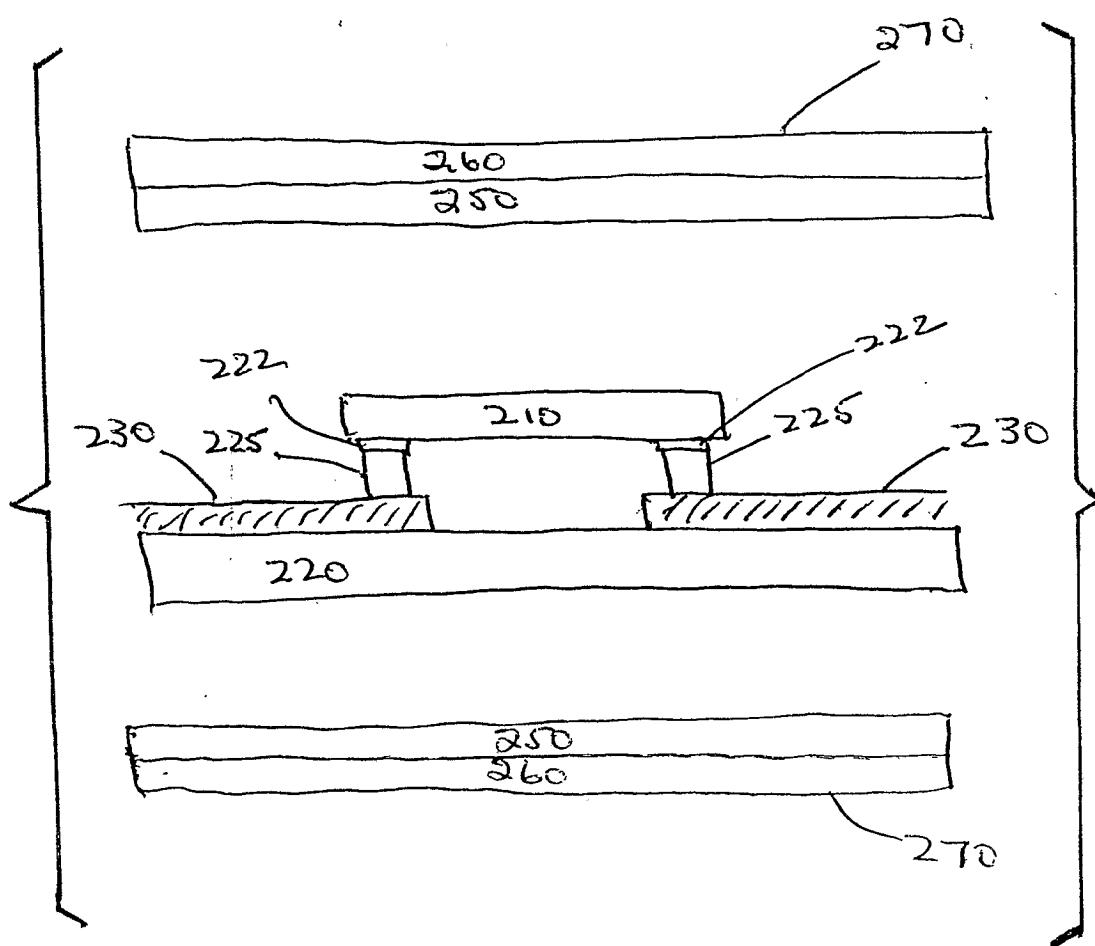


Figure 2

Y0994-18U

300

370

360

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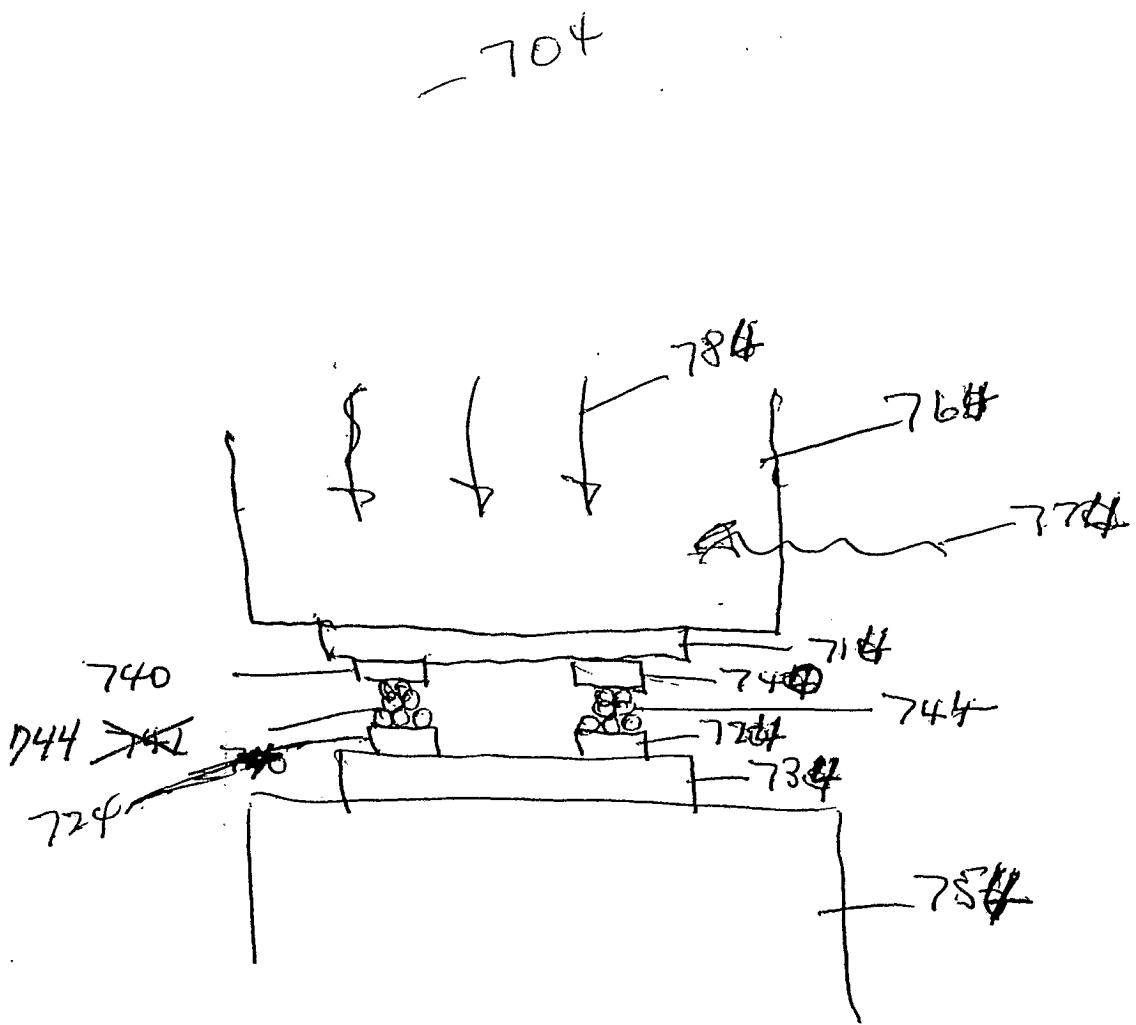
322 315

350

360

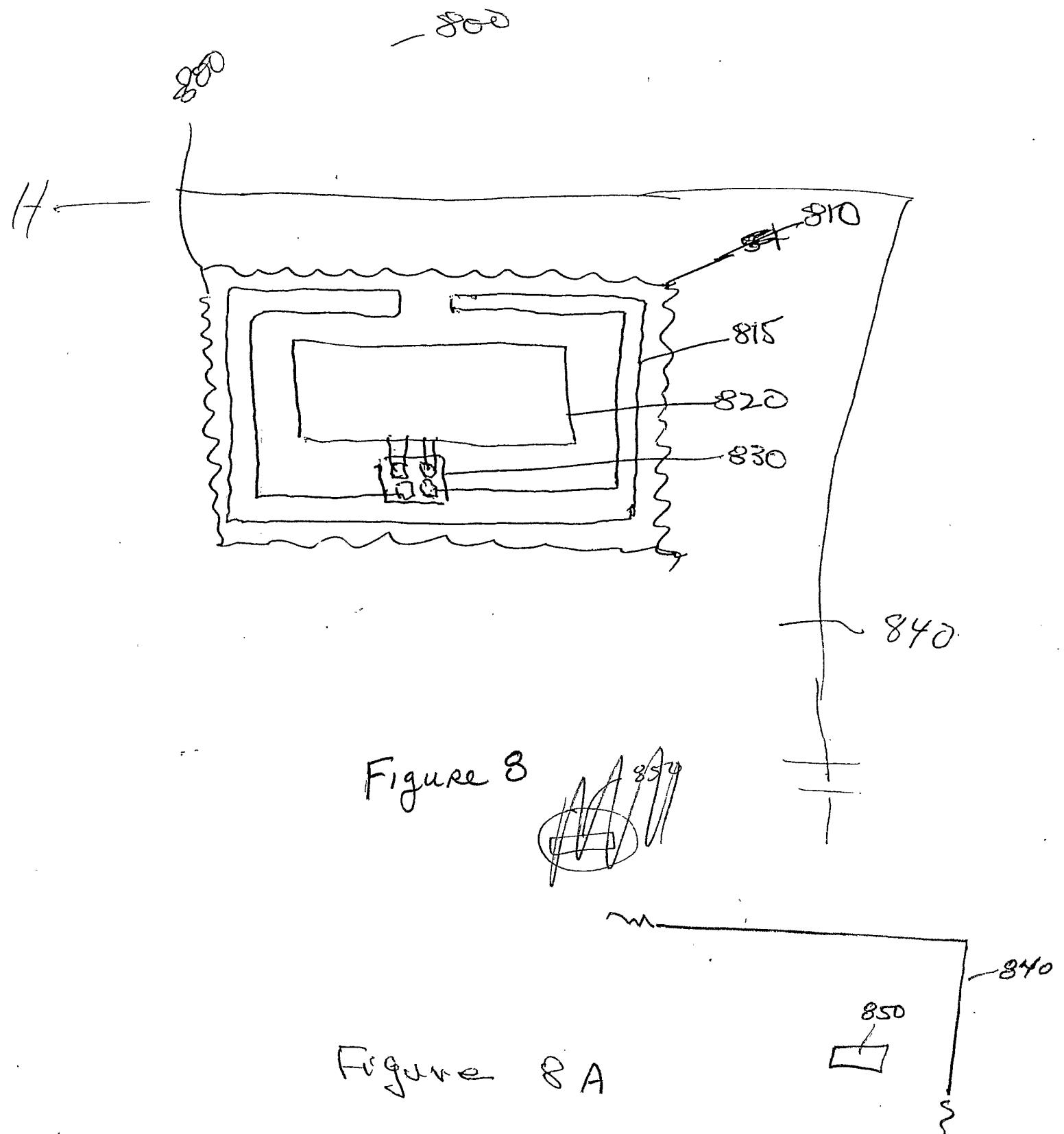
370

Figure 3



Prive Art

Figure 7d



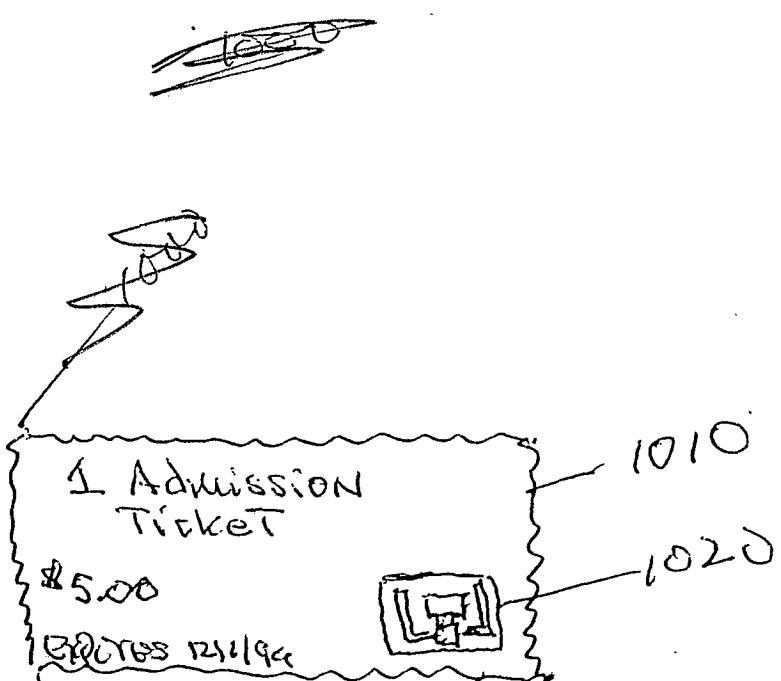


Figure 10

Wet

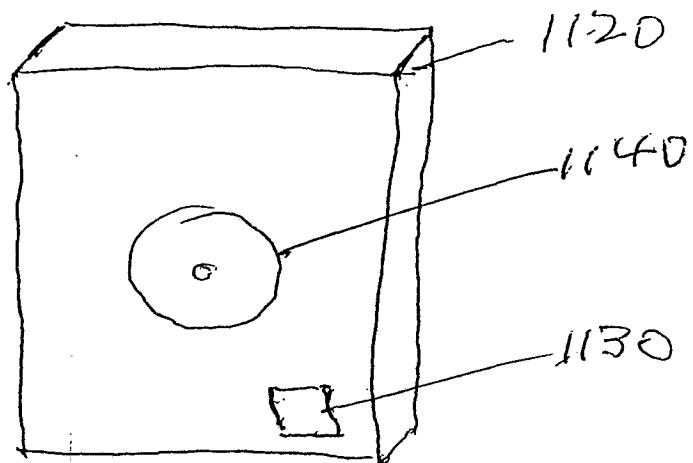


Figure 11

✓ PAM

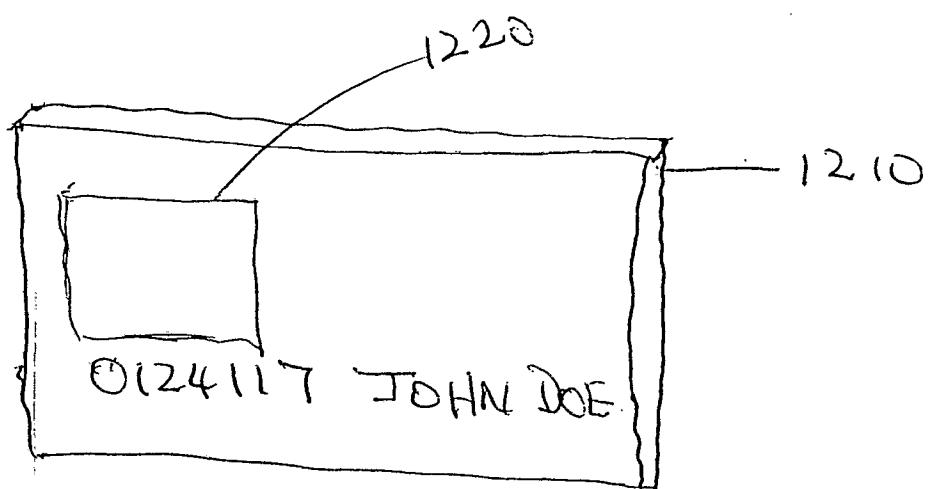


Figure 12

WAD

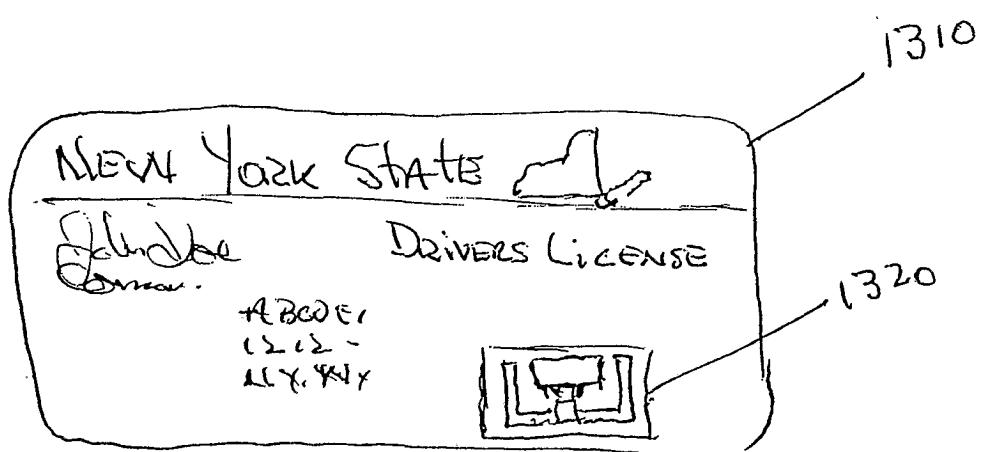


Figure 13

TAB

6



6/Prin
Art

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF: Moskowitz et al) Docket No. Y0994-180
Serial No.: 08/303,977)
Filed: September 9, 1994)
FOR: RADIO FREQUENCY CIRCUIT AND) Dated: September 13, 1995
MEMORY IN THIN FLEXIBLE PACKAGE)

Information Disclosure Statement
Under 37 C.F.R. 1.97-1.98

The Commissioner of Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

Consonant with the duty to disclose information material to patentability set forth in 37 C.F.R. 1.56, enclosed herewith is a completed Form PTO-1449.

Respectfully submitted,

Louis J. Perello

Louis J. Perello
Reg. No. 33,206
(914) 945-3145

IBM Corporation
Intellectual Property Law
P.O. Box 218
Yorktown Heights, N.Y. 10598

Y0994-180

FORM PTO-1449 (Modified)

LIST OF PATENTS AND PUBLICATIONS
FOR APPLICANT'S INFORMATION
DISCLOSURE STATEMENT(Use several sheets if necessary)
18 74
1995

ATTY. DOCKET NO.

YO994-180

SERIAL NO.

08/303,977

APPLICANT:

Moskowitz et al

FILING DATE:

September 9, 1994

GROUP:

2619

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLAS S	FILING DATE (IF APPRO.)
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLAS S	TRANSLATION	
							YES	NO
	AL							
	AM							
	AN							
	AO							
	AP							

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

<i>AR</i>	International Standard 7810, "Identification cards - Physical characteristics"
	First Edition - 1985-12-15
<i>AS</i>	R. R. Tumalla et al, "Microelectronics Packaging Handbook", 1989, pp. 68, 76,
	1154
<i>AT</i>	

EXAMINER

Swann

DATE CONSIDERED

11-07-95

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

TAB

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UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark OfficeAddress: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/323,977	09/09/94	MOSKOWITZ	P Y0994187

E6M1/1115

LOUIS J PERCELLO
INTELLECTUAL PROPERTY LAW DEPARTMENT
IBM CORPORATION
P O BOX 218
YORKTOWN HEIGHTS NY 10598

SWANN I EXAMINER

ART UNIT	PAPER NUMBER
2617	7

DATE MAILED:

EXAMINER INTERVIEW SUMMARY RECORD

11/15/95

All participants (applicant, applicant's representative, PTO personnel):

(1) Louis J. Percello (3)(2) Glen Swann (4)Date of interview 11-07-95Type: Telephonic Personal (copy is given to applicant applicant's representative).Exhibit shown or demonstration conducted: Yes No. If yes, brief description:Agreement was reached with respect to some or all of the claims in question. was not reached.Claims discussed: NoneIdentification of prior art discussed: None

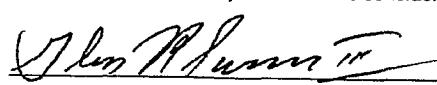
Description of the general nature of what was agreed to if an agreement was reached, or any other comments: An Examiner's Amendment was authorized making editorial corrections to pages 6 & 7, amending page 5, line 26, for clearer antecedent basis for Claim 16 and line 37, for clearer antecedent basis for claim 20 and agreeing to delete "Figure 1" at the bottom of Figs. 1A & 1B, placing the application in condition for allowance.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

Unless the paragraphs below have been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW (e.g., items 1-7 on the reverse side of this form). If a response to the last Office action has already been filed, then applicant is given one month from this interview date to provide a statement of the substance of the interview.

It is not necessary for applicant to provide a separate record of the substance of the interview.

Since the examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action.


Examiner's Signature

TAB

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UNITED STATES DEPARTMENT OF COMMERCE

Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/303,977	09/09/94	MOSKOWITZ	P Y0994180

LOUIS J PERCELLO
INTELLECTUAL PROPERTY LAW DEPARTMENT
IBM CORPORATION
P O BOX 210
YORKTOWN HEIGHTS NY 10598

E6M1/1115

EXAMINER
SWANN III, G

ART UNIT	PAPER NUMBER
2617	apb 11/18/95 8/B

DATE MAILED: 11/15/95

NOTICE OF ALLOWABILITY

PART I.

- This communication is responsive to: Amendment filed 09/18/95
- All the claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in due course.
- The allowed claims are 1-29
- The drawings filed on _____ are acceptable.
- Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has [] been received. [] not been received. [] been filed in parent application Serial No. _____, filed on _____.
- Note the attached Examiner's Amendment.
- Note the attached Examiner Interview Summary Record, PTOL-413.
- Note the attached Examiner's Statement of Reasons for Allowance.
- Note the attached NOTICE OF REFERENCES CITED, PTO-892.
- Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449.

PART II.

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this form. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
- APPLICANT MUST MAKE THE DRAWING CHANGES INDICATED BELOW IN THE MANNER SET FORTH ON THE REVERSE SIDE OF THIS PAPER.
 - Drawing informalities are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper No. 3. CORRECTION IS REQUIRED.
 - The proposed drawing correction filed on 09-18-95 has been approved by the examiner. CORRECTION IS REQUIRED.
 - Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION IS REQUIRED.
 - Formal drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

Attachments:

- Examiner's Amendment
- Examiner Interview Summary Record, PTOL-413
- Reasons for Allowance
- Notice of References Cited, PTO-892
- Information Disclosure Citation, PTO-1449

- Notice of Informal Application, PTO-152
- Notice re Patent Drawings, PTO-948
- Listing of Bonded Draftsmen
- Other

GLEN SWANN
PRIMARY EXAMINER
GROUP 2600

Serial Number: 08/303,977

-2-

Art Unit: 2617

EXAMINER'S AMENDMENT

An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

Changes to the Specification

On page 5, line 26, --, loop,-- has been inserted after "dipole."

On page 5, line 37, --or less-- has been inserted after "(500um)" and --in any case-- has been inserted after "but."

On page 6, line 8, "and has been amended to read --or--.

On page 6, line 31, "a" has been amended to read --an--.

On page 7, line 21, "boding" has been amended to read --bonding--.

Changes to the Drawings

The following changes to the drawings have been approved by the Examiner and agreed upon by applicant: "Figure 1" is to be deleted at the bottom of each of figures 1A & 1B, as indicated in red on the attached print. In order to avoid abandonment of the application, applicant must make the above agreed upon drawing changes.

Serial Number: 08/303,977

-3-

Art Unit: 2617

AUTHORIZATION

Authorization for this Examiner's Amendment was given in a telephone interview with Louis J. Percello on November 11, 1995.


GLEN SWANN
PRIMARY EXAMINER
GROUP 2600

SWANN:grs
November 07, 1995

TO SEPARATE, HOLD TOP AND BOTTOM EDGES, SNAP-APART AND DISCARD CARBON

FORM PTO-892 (REV. 2-92)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		SERIAL NO.	GROUP ART UNIT	ATTACHMENT TO PAPER NUMBER	
				08/1303977	2617		8
		NOTICE OF REFERENCES CITED		APPLICANT(S)	Moskowitz et al.		

U.S. PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
✓	A	5 396 218	03-1995	Olah	340	572	
	B						
	C						
	D						
	E						
	F						
	G						
	H						
	I						
	J						
	K						

FOREIGN PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS	PERTINENT SHTS. DWG.	PP. SPEC.
	L								
	M								
	N								
	O								
	P								
	Q								

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

R	
S	
T	
U	

EXAMINER	DATE	
Swann	11-07-95	

* A copy of this reference is not being furnished with this office action.
(See Manual of Patent Examining Procedure, section 707.05 (a).)



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: Box ISSUE FEE
COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

E6M1/1115

LOUIS J PERCELLO
INTELLECTUAL PROPERTY LAW DEPARTMENT
IBM CORPORATION
P O BOX 218

YORKTOWN HEIGHTS, NY 10598

Note attached communication from the Examiner

This notice is issued in view of applicant's communication filed _____

**NOTICE OF ALLOWANCE
AND ISSUE FEE DUE**

SERIES CODE/SERIAL NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
First Named Applicant	05/02/2002	12	OLASH III, G	2017 11/15/02

TITLE OF INVENTION

RADIO FREQUENCY CIRCUIT AND MEMORY IN THIN FLEXIBLE PACKAGE

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEES DUE	DATE DUE
100-1000000000	346-523-0000	1000	UTILITY	NO	100	02/15/03

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT.
PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS
APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY Status shown above.
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, pay of 1/2 the FEE DUE shown above.

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the patent and Trademark Office of the change in status, or
- B. If the Status is the same, pay the FEE DUE shown above.

II. Part B of this notice should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B should be completed and returned. If you are charging the ISSUE FEE to your deposit account, Part C of this notice should also be completed and returned.

III. All communications regarding this application must give series code (or filing date), serial number and batch number. Please direct all communication prior to issuance to Box ISSUE FEE unless advised to contrary.

IMPORTANT REMINDER: Patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

TAB

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UNITED STATES DEPARTMENT OF COMMERCE

Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/303,977	09/09/94	MOSKOWITZ	P Y0994180

EGM1/0228

SWANN I EXAMINER

LOUIS J PERCELLO
 INTELLECTUAL PROPERTY LAW DEPARTMENT
 IBM CORPORATION
 P O BOX 218
 YORKTOWN HEIGHTS NY 10598

ART UNIT	PAPER NUMBER
2617	9

DATE MAILED:

02/28/96

SUPPLEMENTAL
NOTICE OF ALLOWABILITY

PART I.

1. This communication is responsive to IDS Filed 01-05-96
2. All the claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in due course.
3. The allowed claims are _____
4. The drawings filed on _____ are acceptable.
5. Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has [] been received. [] not been received. [] been filed in parent application Serial No. _____, filed on _____
6. Note the attached Examiner's Amendment.
7. Note the attached Examiner Interview Summary Record, PTOL-413.
8. Note the attached Examiner's Statement of Reasons for Allowance.
9. Note the attached NOTICE OF REFERENCES CITED, PTO-892.
10. Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449. *No copies provided of lined-through references.*

PART II.

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this form. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

1. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
2. APPLICANT MUST MAKE THE DRAWING CHANGES INDICATED BELOW IN THE MANNER SET FORTH ON THE REVERSE SIDE OF THIS PAPER.
- Drawing informalities are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper No. _____. CORRECTION IS REQUIRED.
 - The proposed drawing correction filed on _____ has been approved by the examiner. CORRECTION IS REQUIRED.
 - Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION IS REQUIRED.
 - Formal drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

Attachments:

- Examiner's Amendment
- Examiner Interview Summary Record, PTOL- 413
- Reasons for Allowance
- Notice of References Cited, PTO-892
- Information Disclosure Citation, PTO-1449
- Notice of Informal Application, PTO-152
- Notice re Patent Drawings, PTO-948
- Listing of Bonded Draftsmen
- Other

Glen Swann III
GLEN SWANN
PRIMARY EXAMINER
GROUP 2600

**TAB
10**

GP. 2617



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Moskowitz et al.

Serial No.: 08/303,977

Filed: September 9, 1994

Date: January 5, 1996

For: RADIO FREQUENCY CIRCUIT AND MEMORY IN THIN
FLEXIBLE PACKAGE

10/Jan
Act
3-13-96

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. 1.97(d)

The Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

The Examiner's attention is drawn to the attached Form PTO-1449 containing a list of documents which may be relevant to the subject application. A copy of each of these documents and the European Search Report in which they were cited is provided herewith.

Applicant's undersigned attorney certifies that each item of information contained in this Information Disclosure Statement was cited in a communication (copy enclosed) from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement. The Applicant petitions the Examiner and requests consideration of this Information Disclosure Statement.

A petition fee under 37 C.F.R. §1.17(i) and any other necessary and proper fees to further the prosecution of this application, except the issue fee, is authorized to be charged to Deposit Account No. 09-0468.

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Respectfully submitted,

By: Louis J. Percello
Louis J. Percello
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IBM Corporation
Intellectual Property Law Department
P.O. Box 218
Yorktown Heights, New York 10598

GROUP 260

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S.N. 303,977



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Moskowitz et al.

Serial No: 08/303,977 Group No:

Filed: September 9, 1994 Examiner:

For: RADIO FREQUENCY CIRCUIT AND MEMORY IN THIN FLEXIBLE PACKAGE

Commissioner of Patents and Trademarks

Washington, D.C. 20231

CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)

I hereby certify that the *attached* correspondence comprising:

1. Return Post Card
2. Information Disclosure Statement
3. Form PTO-1449 with European Search Report and references

is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

on January 5, 1996

Paula Stanland

(Type or print name of person mailing paper)

Paula Stanland

(Signature of person mailing paper)

DOCKET NO. Y0994-108